

REMARKS

Claims 1-30 are pending in the subject application. Claims 1-30 stand rejected under 35 U.S.C. § 103(a) and 35 U.S.C. 112, second paragraph. Claims 1, 2, 11, 13, and 14 have been amended. Claims 31-40 have been newly added. Accordingly, upon entry of this amendment, the pending claims will be claims 1-40.

The Applicants appreciate the Examiner's thorough examination of the subject application and respectfully request reconsideration of the subject application based on the above amendments and the following remarks.

35 U.S.C. § 112, SECOND PARAGRAPH REJECTIONS

The Examiner has rejected claims 1-30 under 35 USC 112, second paragraph. Claims 1, 2, 11, 13, and 14 have been amended. Accordingly, the Applicants believe that, the grounds for rejection are moot.

35 U.S.C. § 103(a) REJECTIONS

The Examiner has rejected claims 1, 9-13, 21, 23, 24, 26, 28, and 29 under 35 USC § 103(a) as being anticipated by U.S. Patent Number 5,402,143 to Ge, et al. ("Ge" or the "Ge Reference") in view of U.S. Patent Number 5,912,651 to Bitzakidis, et al. (Bitzakidis" or the "Bitzakidis Reference"); claims 2-4, 14-20, 22, 25, 27, and 30 under 35 USC § 103(a) as being unpatentable over Ge in view of Bitzakidis, further in view of U.S. Patent Number 5,572,341 to Fergason ("Fergason" or the "Fergason Reference"); claim 5 under 35 USC § 103(a) as being unpatentable over Ge in view of Bitzakidis, further in view of U.S. Patent Number 5,760,858 to Hodson, et al. ("Hodson" or the "Hodson Reference"); claim 6 under 35 USC § 103(a) as being unpatentable over Ge in view of Bitzakidis, further in view of Fergason and Hodson; claim 7 under 35 USC § 103(a) as being unpatentable over Ge in view of Bitzakidis, further in view of U.S. Patent Number 5,535,027 to Kimura, et al. ("Kimura" or the "Kimura Reference"); and

claim 8 under 35 USC § 103(a) as being unpatentable over Ge in view of Bitzakidis, further in view of Fergason and Kimura. The Applicants respectfully traverse these rejections in view of the above amendments and for reasons detailed below.

Claims 1, 9-13, 21, 23, 24, 26, 28, and 29

The Examiner alleges that, Bitzakidis teaches a liquid crystal matrix display system wherein the light output layer shines only when a specified period of time has elapsed. Moreover, the Examiner asserts that, Bitzakidis teaches liquid crystal reaching a desired display intensity after a complete set of data signals for each scan line is transmitted and extinguishing before a succeeding complete set of data signals for each scan line are transmitted. Specifically, the Examiner refers to Figure 3 and col. 6, line 37 to col. 11, line 25 as purportedly teaching these features. The Applicants respectfully disagree.

According to the Bitzakidis reference,

[f]ollowing standard practice the panel is driven on a [one] row at [a] time basis by scanning the row conductors 14 sequentially with a selection signal so as to turn on each row of TFTs in turn and applying data signals to the column conductors for each row of picture elements in turn as appropriate and in synchronism with the gating signals so as to build up a complete display picture. In the case of a TV display, each row of picture elements is provided with picture information signals of a TV line. Using one row at a time addressing all TFTs 11 of the addressed row are switched on for a row address period determined by the duration of the selection signal during which the picture element capacitors are charged according to the voltage level of the video information signals on column conductors 16. Thereafter, upon termination of the selection signal, the TFTs 11 of the row are turned off, thereby isolating the picture elements from the conductors 16, and ensuring the applied charge is stored on the picture elements until they are addressed again in a subsequent field period.

Bitzakidis, col. 7, lines 13-31 (Emphasis added). In short, each row is addressed and receives its data signal sequentially and simultaneously.

However, Bitzakidis teaches away from one or more light output layers extinguishing "before a succeeding complete set of data signals for each scan line is transmitted." Referring to Figure 3, applied TV signal data VS in field period F(A) is addressed into the display panel during field period f(A) and the liquid crystal is illuminated during the dormant period D. However, the display panel addressing and illumination of F(A) occurs during field period F(B). In other words, the light does not extinguish "before a succeeding complete set of data signals for each scan line is transmitted;" rather, the succeeding set of data signals, i.e., F(B), is already being transmitted while the display panel is being addressed, i.e., f(A), and when the previous field period data are being illuminated.

With respect to claims 26, 28, and 29, there is nothing in either the Ge or Bitzakidis references that teaches, mentions or suggests that, the light output layer is adjusted in terms of luminance to a maximum luminance of the data signals for each scan line. Bitzakidis is silent about the light output layer being adjusted in terms of the magnitude of the luminance output.

Thus, it is respectfully submitted that, claims 1, 9-13, 21, 23, 24, 26, 28, and 29 are not made obvious by Ge in view of Bitzakidis and, further, satisfy the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that claims 1, 9-13, 21, 23, 24, 26, 28, and 29 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 2-4, 14-20, 22, 25, 27, and 30

Similarly, claims 2 and 14 also require that, one or more light output layers extinguishes before a succeeding complete set of data signals for each scan line is transmitted. However, Bitzakidis teaches away from one or more light output layers extinguishing "before a succeeding complete set of data signals for each scan line is transmitted."

Nor can the Ferguson reference make up for the deficiencies of the Ge and Bitzakidis references. Indeed, the Ferguson reference does not teach, mention or suggest controlling light output layers to extinguish before the next complete set of scanning signals.

With respect to claims 27 and 30, there is nothing in either the Ge or Bitzakidis references that teaches, mentions or suggests that, the light output layer is adjusted in terms of luminance to a maximum luminance of the data signals for each scan line. Bitzakidis is silent about the light output layer being adjusted in terms of the magnitude of the luminance output.

Accordingly, claims 2-4, 14-20, 22, 25, 27, and 30 are not made obvious by Ge in view Bitzakidis, further in view of Ferguson and, further, satisfy the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that the claims and all claims depending therefrom are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 5

For the same reasons provided above that the Ge and Bitzakidis references do not make obvious claim 2 of the present invention, the Ge and Bitzakidis reference also do not make claim 5 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge and Bitzakidis references. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 5 is not made obvious by Ge in view of Bitzakidis, further in view of Hodson and, further, satisfies the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that claim 5 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 6

For the same reasons provided above that the Ge, Bitzakidis, and Fergason references do not make obvious claim 2 of the present invention, Ge, Bitzakidis, and Fergason, further in view of Hodson do not make claim 6 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge, Bitzakidis, and Fergason references. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 6 is not made obvious by Ge in view Bitzakidis, further in view of Fergason and further in view of Hodson and, further, satisfies the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that claim 6 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 7

Nor can the Kimura reference make up for the deficiencies of the Ge and Bitzakidis references. Kimura discloses a display device having a plurality of luminous sources arrayed in parallel with each other, a plurality of linear electrodes arrayed with each other, wherein the luminous sources are crossed with the linear electrodes, and a plurality of photoconductive layers provided at these crossed positions. See, e.g., Kimura, Abstract. Kimura, however, does not teach, mention or suggest controlling light output layers to extinguish before the next complete set of scanning signals. Accordingly, the combination of Ge in view of Bitzakidis, further in view of Kimura does not teach, mention or suggest the present invention.

Therefore, it is respectfully submitted that, claim 7 is not made obvious by Ge in view of Bitzakidis, further in view of Kimura and, further, satisfies the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that

claim 7 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 8

Nor can the Kimura reference make up for the deficiencies of the Ge, Bitzakidis, and Fergason references. Indeed, the Kimura reference does not teach, mention or suggest controlling light output layers to extinguish before the next complete set of scanning signals.

Therefore, it is respectfully submitted that, claim 8 is not made obvious by Ge in view Bitzakidis, further in view of Fergason and further in view of Kimura and, moreover, satisfies the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that claim 8 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 31-40

None of the references cited teaches, mentions or suggests that the light output layer is adjusted in terms of luminance to a maximum luminance of the data signals for each scan line and the liquid crystal's transmittance with respect to the light output layer is controlled to provide 100% transmittance. Accordingly, it is respectfully submitted that, new claims 31-40 are not made obvious by Ge in view Bitzakidis and/or Fergason and/or Kimura and/or Hodson and, moreover, satisfy the requirements of 35 U.S.C. § 100, et seq., especially § 103(a). As such, the Applicants believe that claim 8 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is

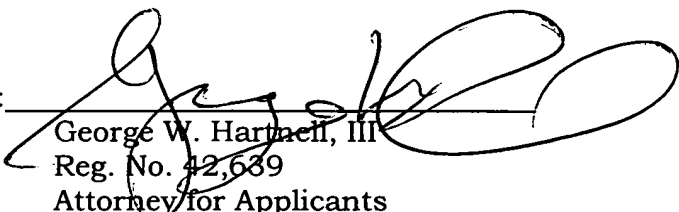
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owed for any excess fee paid, you are hereby authorized and requested to charge
Deposit Account No. **04-1105**.

Respectfully submitted,

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